

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph bridging pages 16 and 17 with the following amended paragraph:

After determining the electromagnetic spectral pattern of the physical catalyst agent, the spectral pattern may be duplicated and applied to the chemical reaction system. Any generator of one or more frequencies within an acceptable approximate range of frequencies of electromagnetic radiation may be used in the present invention. When duplicating one or more frequencies in a catalyst spectrum, it is not necessary to duplicate the frequency exactly. For instance, the effect achieved by a frequency of 1,000 Thz, can also be achieved by a frequency very close to it, such as 1,001 or 999 Thz. Thus there will be a range above and below each exact frequency which will also catalyze a reaction. In addition, harmonics of spectral catalyst frequencies, both above and below the exact frequency, will cause sympathetic resonance with the exact frequency and will catalyze the reaction. Finally, it is possible to catalyze reactions by duplicating one or more of the mechanisms of action of the exact frequency, rather than using the exact frequency itself. For example, platinum catalyzes the formation of water from hydrogen and oxygen, in part, by energizing the hydroxyl radical at its frequency of roughly 1,060 Thz. The reaction can also be catalyzed by energizing the hydroxy radical with its microwave frequency, thereby duplicating platinum's mechanism of action.